SEQUENCE LISTING

<110> Jegla, Timothy James
ICAgen Incorporated

<120> Kv6.2, a Voltage-Gated Potassium Channel Subunit

<130> 018512-001410US

<140> US 09/719,919
<141> 2001-02-22

<150> US 60/091,466
<151> 1998-07-01

<150> WO PCT/US99/14945
<151> 1999-06-30

<160> 18

<170> PatentIn Ver. 2.0

<210> 1
<211> 506
<212> PRT
<213> Mus sp.

<220>
<223> mouse alpha subunit of heteromeric voltage-gated potassium channel Kv6.2

<400> 1

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Phe Gly Ser Cys Ser Pro Leu Ser Gln Leu Trp Pro Gly Pro Glu Pro
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Lys Ser Val Lys Gly Leu Tyr Tyr Ser Arg Ala Arg Lys Val Gly Asn
         35                  40                  45

Gln Asp Ala Ser Pro Glu Ala Asn Leu Lys Glu Ile Leu Val Asn Val
     50                  55                  60

Gly Gly Gln Arg Tyr Leu Leu Pro Trp Ser Thr Leu Asp Ala Phe Pro
 65                  70                  75                  80

Leu Ser Arg Leu Ser Arg Leu Arg Leu Cys Arg Ser His Glu Glu Ile
                 85                  90                  95

Thr Gln Leu Cys Asp Asp Tyr Asp Glu Asp Ser Gln Glu Phe Phe Phe
            100                 105                 110

Asp Arg Asn Pro Ser Ala Phe Gly Val Ile Val Ser Phe Leu Ala Ala
        115                 120                 125

Gly Lys Leu Val Leu Leu Arg Glu Met Cys Ala Leu Ser Phe Arg Glu
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Glu Leu Ser Tyr Trp Gly Ile Glu Glu Thr Asn Leu Glu Arg Cys Cys
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Leu Arg Lys Leu Leu Lys Lys Leu Glu Glu Ala Ala Glu Leu Arg Arg
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Glu Glu Ala Ala Gln Arg Gln Gln Gln Arg Gln Ala Cys His Ser Glu
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Val Gln Ala Ser Arg Trp Ala Arg Ser Met Asn Gln Leu Arg Glu Met
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Val Glu Asp Pro Gln Ser Gly Leu Pro Gly Lys Val Phe Ala Cys Leu
    210                 215                 220

Ser Val Leu Phe Val Ala Thr Thr Ala Val Ser Leu Cys Val Ser Thr
225                 230                 235                 240

Met Pro Asp Phe Arg Ala Glu Glu Gly Lys Gly Glu Cys Thr Arg Lys
                245                 250                 255

Cys Tyr Tyr Ile Phe Val Val Glu Ser Ile Cys Val Ala Trp Phe Ser
            260                 265                 270

Leu Glu Phe Cys Leu Arg Phe Val Gln Ala Pro Asn Lys Cys Gln Phe
        275                 280                 285

Phe Arg Gly Pro Leu Asn Val Ile Asp Ile Leu Ala Ile Ser Pro Tyr
    290                 295                 300

Tyr Val Ser Leu Ala Val Ser Asp Glu Ser Pro Glu Ala Gly Glu Arg
305                 310                 315                 320

Pro Ser Ser Ser Ser Tyr Leu Glu Lys Val Gly Leu Val Leu Arg Val
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Leu Arg Ala Leu Arg Ile Leu Tyr Val Met Arg Leu Ala Arg His Ser
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Phe Gly Leu Leu Met Leu Phe Leu Ala Val Ala Val Thr Leu Phe Ser
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Pro Leu Val Tyr Val Ala Glu Asn Glu Ser Gly Arg Val Leu Glu Phe
385                 390                 395                 400

Thr Ser Ile Pro Ala Ser Tyr Trp Trp Ala Ile Ile Ser Met Thr Thr
                405                 410                 415

Val Gly Tyr Gly Asp Met Val Pro Arg Ser Val Pro Gly Gln Met Val
            420                 425                 430

Ala Leu Ser Ser Ile Leu Ser Gly Ile Leu Ile Met Ala Phe Pro Ala
        435                 440                 445

Thr Ser Ile Phe His Thr Phe Ser His Ser Tyr Leu Glu Leu Lys Arg
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Glu Gln Glu Gln Val Gln Ala Arg Leu Arg Arg Leu Gln Asn Thr Asn
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Glu Gly Leu Thr Ser Pro Gly Arg Tyr Met
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<210> 2
<211> 1518
<212> DNA
<213> Mus sp.

<220>
<221> CDS
<222> (1)..(1518)
<223> mouse alpha subunit of heteromeric voltage-gated potassium channel Kv6.2

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<210> 3
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:mouse amplification primer

<400> 3
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<210> 4
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:mouse amplification primer

<400> 4
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<210> 5
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:amplification primer

<400> 5
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<210> 6
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:amplification primer

<400> 6
gatgatggcc caccaatagg atgcgg 26

<210> 7
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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<400> 7
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<210> 8
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:human open reading frame amplification primer

<400> 8
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<210> 9
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<220>
<223> Description of Artificial Sequence:amplification primer

<400> 9
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<210> 10
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<220>
<223> Description of Artificial Sequence:human 5' RACE PCR nested gene specific S6 region antisense primer

<400> 10
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<210> 11
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<212> DNA
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<400> 11
tagcatcccg gcatcctatt ggtg 24

<210> 12
<211> 25
<212> DNA
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<223> Description of Artificial Sequence:human RT-PCR degenerate antisense S6 region primer

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<210> 13
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<223> Description of Artificial Sequence:human standard 3' RACE PCR gene specific pore (P) region sense primer

<400> 13
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<210> 14
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<212> DNA
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<223> Description of Artificial Sequence:human 5' RACE
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<400> 14
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<210> 15
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<220>
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amplification sense primer

<400> 15
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<210> 16
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<220>
<223> Description of Artificial Sequence:human
amplification antisense primer

<400> 16
ctgggctcta gaaacaccac caggt 25

<210> 17
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<213> Homo sapiens

<220>
<223> human alpha subunit of heteromeric voltage-gated
potassium channel Kv6.2

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Tyr Gly Ser His Ser Pro Trp Ser Gln Leu Leu Ser Ser Pro Met Glu
20 25 30

Thr Pro Ser Ile Lys Gly Leu Tyr Tyr Arg Arg Val Arg Lys Val Gly
35 40 45

Ala Leu Asp Ala Ser Pro Val Asp Leu Lys Lys Glu Ile Leu Ile Asn
50 55 60

Val Gly Gly Arg Arg Tyr Leu Leu Pro Trp Ser Thr Leu Asp Arg Phe
65 70 75 80

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Pro Leu Ser Arg Leu Ser Lys Leu Arg Leu Cys Arg Ser Tyr Glu Glu
                 85                  90                  95

Ile Val Gln Leu Cys Asp Asp Tyr Asp Glu Asp Ser Gln Glu Phe Phe
            100                 105                 110

Phe Asp Arg Ser Pro Ser Ala Phe Gly Val Ile Val Ser Phe Leu Ala
        115                 120                 125

Ala Gly Lys Leu Val Leu Leu Gln Glu Met Cys Ala Leu Ser Phe Gln
    130                 135                 140

Glu Glu Leu Ala Tyr Trp Gly Ile Glu Glu Ala His Leu Glu Arg Cys
145                 150                 155                 160

Cys Leu Arg Lys Leu Leu Arg Lys Leu Glu Glu Leu Glu Glu Leu Ala
                165                 170                 175

Lys Leu His Arg Glu Asp Val Leu Arg Gln Gln Arg Glu Thr Arg Arg
            180                 185                 190

Pro Ala Ser His Ser Ser Arg Trp Gly Leu Cys Met Asn Arg Leu Arg
        195                 200                 205

Glu Met Val Glu Asn Pro Gln Ser Gly Leu Pro Gly Lys Val Phe Ala
    210                 215                 220

Cys Leu Ser Ile Leu Phe Val Ala Thr Thr Ala Val Ser Leu Cys Val
225                 230                 235                 240

Ser Thr Met Pro Asp Leu Arg Ala Glu Glu Asp Gln Gly Glu Cys Ser
                245                 250                 255

Arg Lys Cys Tyr Tyr Ile Phe Ile Val Glu Thr Ile Cys Val Ala Trp
            260                 265                 270

Phe Ser Leu Glu Phe Cys Leu Arg Phe Val Gln Ala Gln Asp Lys Cys
        275                 280                 285

Gln Phe Phe Gln Gly Pro Leu Asn Ile Ile Asp Ile Leu Ala Ile Ser
    290                 295                 300

Pro Tyr Tyr Val Ser Leu Ala Val Ser Glu Glu Pro Pro Glu Asp Gly
305                 310                 315                 320

Glu Arg Pro Ser Arg Ser Ser Tyr Leu Glu Lys Val Gly Leu Val Leu
                325                 330                 335

Arg Val Leu Arg Ala Leu Arg Ile Leu Tyr Val Met Arg Leu Ala Arg
            340                 345                 350

His Ser Leu Gly Leu Gln Thr Leu Gly Leu Thr Val Arg Arg Cys Thr
        355                 360                 365

Cys Glu Phe Gly Leu Leu Leu Leu Phe Leu Ala Val Ala Ile Thr Leu
    370                 375                 380

Phe Ser Pro Leu Val Tyr Val Ala Glu Lys Glu Ser Gly Arg Val Leu
385                 390                 395                 400
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Glu Phe Thr Ser Ile Pro Ala Ser Tyr Trp Trp Ala Ile Ile Ser Met
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Thr Thr Val Gly Tyr Gly Asp Met Val Pro Arg Ser Val Pro Gly Gln
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Met Val Ala Leu Ser Ser Ile Leu Ser Gly Ile Leu Ile Met Ala Phe
435 440 445

Pro Ala Thr Ser Ile Phe His Thr Phe Ser His Ser Tyr Leu Glu Leu
450 455 460

Lys Lys Glu Gln Glu Gln Leu Gln Ala Arg Leu Arg His Leu Gln Asn
465 470 475 480

Thr Gly Pro Ala Ser Glu Cys Glu Leu Leu Asp Pro His Val Ala Ser
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Ala Leu Pro Ile Met His Met
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<210> 18
<211> 2022
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (149)..(1708)
<223> human alpha subunit of heteromeric voltage-gated potassium channel Kv6.2

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